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09/997,404

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EXAMINER

SUAZO, RAINIER A

ART UNIT

PAPER NUMBER

2144

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,404

Applicant(s)

SREENIVASAN ET AL.

Examiner

Rainier Suazo

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 07/25/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-13 are pending in this application.

Response to Arguments

Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection. Arguments were found not persuasive.

Examiner respectfully invite the Applicant to clarify the following limitation found in claim 1: "operative to receive a failover script". To the light of the specifications (on Figure 2 and page 15, lines 5-14) receiving a failover script appears to be receiving an input domain (which is nothing but a list of available nodes). Applicant argues in page 6 of the response (received on 07/25/2005) that a failover script is read and interpreted to determine a failover domain at runtime based on commands in the script, however Applicant have not clarified, neither in the claims or in the remarks, what is the content of the script or the source of the script and when the script is received. Receiving the failover script in a setup/configuration phase of the failover domain would be inside the broadest interpretation. The Applicant is invited to clarify such details.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "a failover script is read and interpreted to determines a failover domain at runtime based on commands in the script") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander et al. (US 6,189,111 B1), hereinafter 'Alexander' in view of Fung (US 6,859,882 B2) hereinafter 'Fung'.

Alexander taught a method and system to enhance survivability of system software components, even in the event of catastrophic failure of the computing element on which they reside. See abstract.

Regarding claim 1, Alexander taught a system for implementing a failover policy comprising: a cluster infrastructure for managing a plurality of nodes; a high availability infrastructure for providing group and cluster membership services (cluster membership service or CLMS) (**column 5 lines 35-40**); and a high availability script execution component operative to execute computer code and receiving at least one failover attribute (failing node information and harvested data)

Alexander did not teach details regarding receiving commands (scripts) related to the failing event of the group of nodes.

Fung taught receiving a network architecture embodied as a computer system or a server that in one of the embodiments is applicable to High Availability Management (column 29, lines 26-35), further Fung taught a core logic that receives a command and actuate upon receiving such command and that such command are sent over a network such as for example, a Wake-on-LAN signal (column 55, lines 29-55).

It would have been obvious to one of ordinary skill in the art working with Alexander at the time of the invention to modify the teachings of Alexander with the teachings of Fung, in order to receive a command (operable to actuate a core logic) over a network as taught by Fung (column 29, lines 26-35 and column 55, lines 29-55), wherein such command is conveyed inside the report of failure received by the Master Cluster Manager (Alexander: column 5 lines 47-50). Fung and Alexander motivated to explore the art of High Availability in computer network (Fung: column 29, lines 26-35 and Alexander: column 2 lines 26-34). Alexander would have resulted improved by the combination by including specific details in the form of commands in the failure report.

Alexander teachings are further operative to produce a failover domain (recognizing the failing node and removing it from the bitmap) (column 5 lines 40-50, column 6 lines 19-21, column 8 lines 40-42, column 9 lines 32-33). Note that Alexander teaching describe producing a failover domain when a failing node is recognized and a notification is send to the other nodes which represents a failover domain that by

definition is the area of control to which the system will automatically transfer activity to a standby server upon failure of an active server.

Alexander modified by Fung is hereinafter referenced to as 'the first combination'.

Regarding claim 2, the first combination further taught a method for determining a target node for a failover, comprising: executing a failover script, said script producing a failover domain, said failover domain having an ordered list of nodes (**column 5 lines 40-47, fig. 3 and column 9 lines 40-53 [ordered list of nodes]**); receiving a failover attribute (**column 5 lines 54-65**); and based on the failover attribute and failover domain selecting a node upon which to locate a resource (**column 5 lines 50-52, column 9 lines 26-39 and column 10 lines 48-57**).

Regarding claims 3 and 13, it is understood that in the first combination (Alexander: column 5, lines 40-47) an initial domain exist and is represented by "each of the other nodes". Further, when a node fails to respond the rest of the nodes are notified (Alexander: column 5 lines 47-50) and when the failed node is removed from the map and as per the described action, it is understood that a failover domain is effectively produced (Alexander: column 6 lines 54-56, column 8 lines 40-42, column 9 lines 32-33).

Regarding claim 4, the first combination further taught defining a resource group (Alexander: column 6 lines 54-56); and associating the failover script and the failover attribute with the resource group (Alexander: column 6 lines 56-63).

Regarding claim 5, the first combination taught the use of table to determine a non-failed node capable of harvesting data from a failed node. It is well known in the art of computer networks that files or tables are read in sequence or by an index and using the first node found in the table would be the conventional way to select a non-failed node (Alexander: column 6, lines 54-63) from a table.

Regarding claim 6, the first combination taught that the table is used either by the failed node performing active harvesting or by the non-failed node performing passive harvest (Alexander: column 6, lines 60-63) , which is commensurate with executing an action script (Cluster Manager component (Regroup) or Harvest processes) for a target node.

Regarding claim 7, the first combination further taught action scripts verifying resources and resources configuration on a node (Alexander: column 9 lines 18-25) in the form of ASSERT macros that perform consistency checks and can be used on candidates for harvesting; and can further be used by applications for validation purposes.

Regarding claims 8-10, the first combination taught that operating systems of the embodiments are capable of encountering errors or faults (Alexander: column 6, lines 5-7), and further taught macros that perform validations (Alexander: column 9 lines 18-25) as explained above in relation to claim 7, further services running in a distributed fashion are taught (Alexander: column 5, lines 35-38), in addition to other services (Alexander: column 10, lines 5-11). It is understood that the first combination taught or at least suggest, that applications can validate data structures (Alexander: column 9, lines 24-25) that are dependent on services/applications/resources (Alexander: column 10, lines 5-11) and that upon discovering a particular status an appropriate arbitrary action can be performed (Alexander: column 9, lines 18-23) and that such action can be a recovery attempt (Alexander: column 6, lines 5-7), which when refereeing to a running service/resource/application will be the arbitrary preferred command of stopping or starting such service/resource/application.

Regarding claims 11 and 12 Examiner takes Official Notice (see MPEP § 2144.03) that "the use of a shell script or a Perl script" in a computer-networking environment was well known in the art at the time the invention was made. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03. However, MPEP § 2144.03 further states "See also *In re Boon*, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances justifying the judicial notice)." Specifically, *In re Boon*, 169

Art Unit: 2144

USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

Conclusion

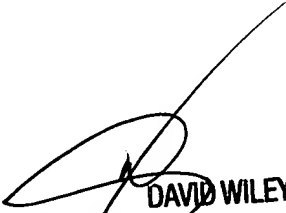
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rainier Suazo whose telephone number is (571) 272-3931. The examiner can normally be reached on Monday through Friday, 8:00-4:30..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rainier Suazo, MBA
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Art Unit 2144


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